

REMARKS

Allowable Subject Matter

Applicants gratefully acknowledge the Examiner's indication that claims 6, 7 and 10 are allowed. See page 3 of the Office Action.

Amendments

Claim 6 is amended to provide express antecedent basis for certain terms. New claims 25-27 are directed to further aspects of applicants' claimed invention. See, e.g., Figures 1-2.

Rejection of Claims 11-24 under 35 USC 102(b) and/or 35 USC 103(a)

Claims 11-24 are rejected as allegedly being anticipated or obvious in view of Buck et al. (US 4,895,584). This rejection is also respectfully traversed.

This rejection as presented in the Office Action of August 28, 2008, is identical to a rejection presented in the Office Action of June 7, 2007.

To establish anticipation, the rejection must indicate where the asserted anticipatory reference discloses each feature of the rejected claim. See, e.g., *Ex parte Levy*, 17 USPQ2d 1461, 1462 (POBA 1990) [“Moreover, it is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference.”]. Merely citing the Figures of US '584 does not indicate where the asserted anticipatory reference discloses each feature of the rejected claims. Thus, the instant anticipation rejection fails to indicate where each of the features of claims 11-24 are disclosed and thus should be withdrawn on this basis alone.

As for obviousness, the rejection merely alleges that if any difference can be shown between that claimed and that disclosed by Buck et al. such differences would be obvious “as routine modification.” Not, only is this allegation conclusory in nature, but it also demonstrates that the rejection fails to set forth any differences between the claimed invention and the cited prior art and further fails to explain how such differences are obvious. See, e.g., *Graham v. John Deere*, 383 U.S. 1 (1966) and *KSR International Co. V. Teleflex Inc.*, 127 S. Ct. 1727 (2007). Thus, the instant obviousness rejection should be withdrawn on this basis alone.

US '584 discloses a process and system for separating a hydrocarbon feed gas containing methane, C₂ hydrocarbons, and heavier hydrocarbons into a lighter fraction containing methane and lighter components and a heavy fraction containing predominantly C₂ hydrocarbons and heavy hydrocarbons. In the Figures, the system is shown to include a first high pressure separator 44, which receives the raw feed gas, and a second high pressure separator 48, which receives the residue gas from the top of the first high pressure separator 44. The system further includes a light ends fractionating column 52, which receives, *inter alia*, the residue vapor from the second high pressure separator 48, and a heavy ends fractionation column 56, which receives the liquid from the second high pressure separator 48, the liquid from the light ends fractionating column 52, and possibly part of the liquid from the first high pressure separator 44.

In addition, off gas from the heavy ends fractionation column 56 is combined with all or part the liquid from the first high pressure separator 44 and introduced into the top of the light ends fractionating column 52. However, as discussed in further detail below, the system of US '584 does not have a reflux separator.

Referring specifically to the Figures, in Figure 1 of US '584, a portion of the liquid residue removed from the first high pressure separator 44 may be delivered to the heavy ends fractionation column 56 via valve 54. Also, all or a portion of the liquid residue removed from the first high pressure separator 44 is co-mingled with off gas from the heavy ends fractionation column 56 (see valve 58). The commingled stream is then delivered to the light ends fractionating column 52 via valve 62. The liquid residue removed from the first high pressure separator 44 is treated in a similar manner in Figure 2 (see, e.g., valves 54, 58, and 62), Figure 3 (see, e.g., valves 54, 62, and 74), and Figure 4 (see, e.g., valves 54, 58, and 62). In Figure 2, a portion of the liquid residue removed from the first high pressure separator 44 is co-mingled with off gas from the heavy ends fractionation column 56 as described for Figure 1.

US '584 does not disclose or suggest delivering any portion of liquid residue removed from the first high pressure separator 44 to a reflux separator. Compare line 4B, line 16 and reflux separator 57 in applicants' Figures.

Turning to the second high pressure separator 48 of US '584, as shown in Figure 1, the liquid residue from separator 58 is delivered to the heavy ends fractionation column 56 via line 16 and valve 60. The same is true for the embodiments illustrated in Figures 2-4.

Thus, US '584 does not disclose or suggest delivering any portion of liquid residue removed from the second high pressure separator 48 to a reflux separator. Here again, compare line 4B, line 16 and reflux separator 57 in applicants' Figures.

From the above discussion, it is evident that US '584 fails to disclose or suggest a reflux separator as recited in applicants' claim 11. As a result, US '584 fails to disclose or suggest any connections to such a reflux separator as recited in applicants' dependent claims 15-21, 23 and 24.

In the Advisory Action issued September 19, 2007, it is argued that element 52 (which is the light ends fractionating column), as shown in Figure 1 of US '584, operates as a "reflux separator," and further it is asserted that patentability is based on function of a structure not the name thereof. However, the assertion that column 52 of US '584 operates as a reflux separator in accordance with applicants' claimed invention is incorrect.

In the embodiments shown in Figures 1-4 of US '584, column 52 has two feed streams. One feed stream is stream 49, the gas discharged from the second high pressure separator 48, and the other feed stream is a stream formed by the combination of a portion of the liquid residue removed from the first high pressure separator 44 and the off gas from the heavy ends fractionation column 56 (i.e., streams 23, 33, 43, 53).

Column 52 does not have an inlet for introducing at least a portion of liquid obtained from a separator for separating hydrocarbon feed gas. For example, column 52 does not have an inlet for introducing at least a portion of liquid obtained from separator 44. Thus, it is evident that column 52 does not operate like a reflux separator in accordance with the reflux separator recited in applicants' claim 11.

Furthermore, if one were to consider column 52 of US '584 to be a reflux separator in accordance with applicants' claim 11, **then the system of US '584 would be devoid of a light-ends fractionation column in accordance with applicants' claim 11.**

In view of the above remarks, it is respectfully that US '584 fails to anticipate or render obvious applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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